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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/508,866	07/14/2000	MARTIN HOTTNER	FA/175A	4070

7590 06/23/2003

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EXAMINER

BEFUMO, JENNA LEIGH

ART UNIT	PAPER NUMBER
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1771

DATE MAILED: 06/23/2003

14

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/508,866

Applicant(s)

HOTTNER, MARTIN

Examiner

Jenna-Leigh Befumo

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 June 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26, 28-69 and 73-93 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8, 10-17, 20-26, 28-33, 35-44, 48, 49, 55-69, 73-75, 79, 80 and 84-93 is/are rejected.
- 7) ☒ Claim(s) 9, 18, 19, 34, 45-47, 50-54, 76-78 and 81-83 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Response to Amendment

1. Applicant's request for reconsideration of the rejection of the last Office action is persuasive and, therefore, the finality of that action is withdrawn. However, a new rejection is set forth below, based on new prior art.
2. Amendment B, submitted as Paper No. 13 on June 4, 2003, has been entered. Claims 18 – 26, 28 – 69, and 73 – 93 have amended. Therefore, the pending claims are 1 – 26, 28 – 69, and 73 – 93.
3. Amendment B is sufficient to overcome the claim objections to claims 51, 82, and 92 set forth in the previous Office Action.
4. Amendment B is sufficient to overcome the 35 USC 112 2nd paragraph rejection set forth in section 10 of the previous Office Action because the amendment has clarified what layers are present in the waterproof laminate.
5. Finally, the 35 USC 103 rejections based on JP 03-174051 are withdrawn since there is no teaching or suggestion in JP 03-174051 that the woven fabric, which would be inherently breathable, should be formed into garments which have waterproof seams. Thus, there is no reason to combine the JP 03-174051 with French as argued by the Applicant (Amendment B, pages 9 – 10).

Claim Objections

6. Claim 51 is objected to because of the following informalities: the clean version of the amendment included the marked up version of claim 51 so that it now reads “temperature [intermediate] between”. Appropriate correction is required.

Claim Rejections - 35 USC § 112

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7. Claim 92 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

8. The phrase "451 polytetrafluoroethylene" in claim 92 is indefinite. Is "451 polytetrafluoroethylene" a specific type of PTFE? If so what is the structure of "451 polytetrafluoroethylene"?

Claim Rejections - 35 USC § 102

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

10. Claims 1, 6, 10 – 15, 17, 20 – 22, 25, 26, 29, 35 – 39, 41, 48, 49, 55 – 57, 60, 79, 80, 84 – 86, 88, 89, and 92 are rejected under 35 U.S.C. 102(a) and 35 U.S.C. 102(e) as being anticipated by Goodwin et al. (5,569,506).

Goodwin et al. discloses an improved protective cover which has improved seams formed by using adhesive to reduce void sizes in the seam (abstract). The protective cover is formed from a composite material of a microporous film attached to a fibrous material such as a woven, knit, or nonwoven fabric (column 2, lines 18 – 21). The composite material is sealed to itself along seams to make desired shapes (column 2, lines 22 – 23). The seams are produced adding a layer of adhesive to the fibrous material which fully encapsulates the fibers (column 2, lines 27 –

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30). The microporous film layer is made from PTFE (column 3, lines 48 – 50). The fibrous layer can be made nylon, polypropylene, cotton, polyester and fire resistant fabrics (column 3, lines 45 – 47). The fibers would inherently be in the forms of yarns to make knit or woven fabrics and those yarns would inherently be made from either staple or filaments fibers. The seam is formed between two composite layers by applying a thermoplastic adhesive to the fabric layer (column 4, lines 63 – 66). The thermoplastic adhesive corresponds to the Applicants second component, while the fibrous material corresponds to the Applicant's first material. The seam can be formed by pressing at a temperature of at least 100°C, preferably 125 – 150°C (column 5, lines 4 – 6). Thus, the adhesive would inherently melt below this temperature so that it can bond the layers together and fully encapsulate the fibers. Further, the fibers Goodwin et al. teaches that the fabric layer is made from would inherently have a melting temperature of 20°C greater than the melting temperature of the adhesive, since nylon has a melting point at least 419°F or 212°C, and polyester begins to soften at at least 226°C, (Wellington Sears Handbook of Industrial Textiles, pages 596 – 597). The seam has a width of 1.5 to 5.0mm (column 5, lines 2 – 3). The composite can be used to form various garments and covers (column 6, lines 14 – 16). Therefore, claims 1, 6, 10 – 15, 17, 20 – 22, 25, 26, 29, 35 – 39, 41, 48, 49, 55 – 57, 60, 79, 80, 84 – 86, 88, 89, and 92 are anticipated by Goodwin et al.

Claim Rejections - 35 USC § 102/103

11. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

12. Claims 2 – 5, 7, 8, 23, 24, 28, 30 – 33, 58, 59, and 61 – 69 are rejected under 35 U.S.C. 102(a and e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Goodwin et al.

The features of Goodwin et al. have been set forth above. Although Goodwin et al. does not explicitly teach the limitations water entry pressure of the seam, seam stiffness, seam shrinkage, seam elongation at break, transverse seam strength, MVTR or the laminate, and water entry pressure of the laminate, it is reasonable to presume that said limitations are inherent to the invention. Support for said presumption is found in the use of similar materials (i.e. PTFE functional layer, a fibrous backing layer which comprises a meltable component second component) and in the similar production steps (i.e. melting the second component to form a seam between two layers of the laminate) used to produce the finished garments with waterproof seams. The burden is upon the Applicant to prove otherwise. *In re Fitzgerald*, 205 USPQ 594. In the alternative, the claimed limitations would obviously have been provided by the process disclosed by Goodwin et al. Note *In re Best*, 195 USPQ 433, footnote 4 (CCPA 1977) as to the providing of this rejection under 35 USC 103 in addition to the rejection made above under 35 USC 102. Therefore, claims 2 – 5, 7, 8, 23, 24, 28, 30 – 33, 58, 59, and 61 – 69 are rejected.

Claim Rejections - 35 USC § 103

13. Claims 16 and 40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Goodwin et al.

The features of Goodwin et al. have been set forth above. While Goodwin et al. discloses that nylon fibers can be used in the fibrous layer, Goodwin et al. fails to teach using nylon 6,6. However, it would have been obvious to one having ordinary skill in the art to choose nylon 6,6 as the type of nylon fiber, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416. Further, nylon 6,6 has better heat resistance than nylon 6. Therefore, it would have been obvious to one of ordinary skill in the art

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to choose nylon 6,6, as the type of nylon due the better heat resistance of nylon 6,6. Thus, claims 16 and 40 are rejected.

14. Claims 87 and 90 are rejected under 35 U.S.C. 103(a) as being unpatentable over Goodwin et al.

The features of Goodwin et al. have been set forth above. While Goodwin et al. discloses that various types of fibers can be used in the fibrous layer, Goodwin et al. fails to teach using wool or silk fibers. However, it would have been obvious to one having ordinary skill in the art to choose wool or silk fiber, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416. Further, one of ordinary skill in the art would be motivated to use wool or silk fibers due to the insulation and moisture regain properties of those fibers. Therefore, claims 87 and 90 are rejected.

15. Claims 42, 43, 44, 73, 74, 75, 91, and 93 are rejected under 35 U.S.C. 103(a) as being unpatentable over Goodwin et al. in view of Reaney (5,162,149).

The features of Goodwin et al. have been set forth above. While Goodwin et al. discloses that thermoplastic adhesives can be used in the composite, Goodwin et al. fails to teach using thermoplastic adhesives made from polypropylene, polyethylene, or polyamides. Reaney is drawn to waterproof seam tape which is used to form seams in fabrics comprising PTFE (abstract). Reaney discloses that the choice of thermoplastic adhesives is fairly wide and polyester, polyamides, fluoropolymer, and polyurethanes are all used commercially as hot melt adhesives (column 1, lines 55 – 60). Therefore, it would have been obvious to one having ordinary skill in the art to choose the recited thermoplastic adhesives as the type of adhesive, since it has been held to be within the general skill of a worker in the art to select a known

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material on the basis of its suitability for the intended use as set forth above. Thus, claims 42 – 44, 73 – 75, 91, and 93 are rejected.

Allowable Subject Matter

16. Claims 9, 18, 19, 34, 45 – 47, 50 – 54, 76 – 78, and 81 – 83 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

17. The following is a statement of reasons for the indication of allowable subject matter: The prior art fails to teach or fairly suggest producing a waterproof seam between two laminates wherein at least one laminate comprises a waterproof functional layer and a fabric layer made from bicomponent fibers wherein the second component of the bicomponent fibers is melted to form the seam. Additionally, the prior art fails to teach or suggest including an activatable propellant in the second layer, which upon heating expands to form a watertight seam.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jenna-Leigh Befumo whose telephone number is (703) 605-1170. The examiner can normally be reached on Monday - Friday (9:00 - 5:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on (703) 308-2414. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

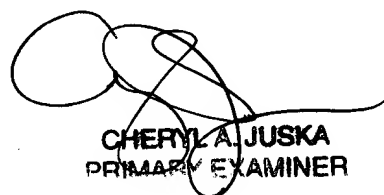
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Jenna-Leigh Befumo

June 18, 2003



CHERYL A. JUSKA
PRIMARY EXAMINER